# **Petrochemicals**

Tuesday, March 25, 2014



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# **Petrochemical price monitor**

- Still slow demand for downstream olefins. Weaker demand for ethylene derivatives pulled ethylene price down 0.2% WoW, mimicking the slip in feedstock cost (naphtha). PE price was flat WoW across the board amidst slower demand and high inventory level in key market in China. We believe lower production rate of PE producers could rebalance the market, which is expected to be tighter in the remainder of the year on greater demand growth than supply additions.
- PX price sparked by higher PTA. The PX price decline paused last week, rising 2.6% WoW to US\$1,173/t with spread up 10.6% WoW. We do not expect this to last long, given the influx of new supply. Higher downstream demand will support short-term price rises, but will not change the medium term trend for lower price.
- PET/PTA spread pulled back after hitting 12-month high. Integrated PET/PTA spread slid 6.1% WoW to US\$331/t on a WoW rise in PX cost. There was some offset provided by a higher PTA price after some producers cut production rate to reduce inventory. We believe PET/PTA spread will continue to move up on higher demand for PET bottle grade across Asia, raising regional prices before summer.

**Investment view:** IVL (Neutral, TP: Bt24) share continued to outperform the sector and the SET, up 3.2% WoW and 12% in four weeks, we believe this is due to the better PET/PTA spread (+16.7% QoQ). The near term outlook for PET/PTA spread is good, and the approaching summer could spark PET (bottle grade) price. Our sector pick PTTGC (BUY, TP: Bt92) performed poorly, down 2.1% WoW and 10% YTD. We believe the market is overly concerned about weak aromatics price and spread, mainly PX, which contributes only 16% to 2013 EBITDA. Olefins, 56% of EBITDA, is still in an upcycle and should be able to offset the negative from the aromatics business. Although there remains downside risk to earnings estimate, we believe this is largely priced in.

# Figure 1: Petrochemical price update

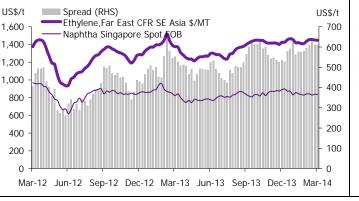
	Current	52-week	-1W	-1M	-3M	-6M	-12M	1Q14	4Q13	Q0Q%	YTD	Chg.	%YoY	2014F
	21-Mar-14	High/Low						QTD						projection
Price														
Naphtha Singapore Spot FOB	837	897/744	-0.3%	-0.6%	-6.0%	0.3%	1.7%	845	855	-1.2%	845	-35	-4.0%	822
Ethylene, Far East CFR SE Asia \$/MT	1,448	1,465/1,215	-0.2%	0.9%	1.6%	3.4%	5.3%	1,440	1,427	0.9%	1,440	40	2.9%	1,320
Propylene (C), Spot CFR F/E U\$/MT	1,398	1,503/1,280	-2.1%	-4.4%	-6.7%	-3.5%	6.7%	1,465	1,472	-0.4%	1,465	119	8.9%	1,370
Polye HDPE Inj, South East Asia U\$/MT	1,540	1,570/1,425	0.0%	0.7%	0.3%	2.0%	5.5%	1,548	1,530	1.2%	1,548	73	4.9%	1,440
Polye LDPE-Film, Spot S.E Asia U\$/MT	1,600	1,680/1,420	0.0%	-0.6%	-4.8%	-2.7%	8.1%	1,643	1,664	-1.3%	1,643	183	12.5%	1,490
Polye LLDPE Film, F/E Spot SE Asia \$/MT	1,550	1,585/1,410	0.0%	1.3%	-1.3%	2.0%	5.4%	1,563	1,546	1.1%	1,563	84	5.7%	1,480
PP Film, Spot South East Asia U\$/MT	1,550	1,570/1,440	-0.6%	-0.6%	-0.3%	0.6%	3.3%	1,563	1,539	1.5%	1,563	25	1.6%	1,490
Related stocks				PTTGC (I	Neutral)	IRPC (·	-)   SCC	(Neutral)	TPIPL	(+)				
Para-Xylene CFR Chin M. Por Spot \$/MT	1,173	1,515/1,143	2.6%	-7.9%	-18.1%	-21.0%	-20.8%	1,290	1,432	-9.9%	1,290	-355	-21.6%	1,390
Benzene, Far East CFR Spot F/E U\$/MT	1,235	1,368/1,218	1.2%	-5.0%	-8.7%	-6.6%	-5.7%	1,310	1,298	0.9%	1,310	-97	-6.9%	1,220
elated stocks PTTGC (+)   TOP (+)   ESSO (+)														
MEG, Far East Spot CFR F/E U\$/MT	917	1,124/905	0.1%	-2.4%	-11.4%	-13.7%	-10.8%	969	1,043	-7.1%	969	-169	-14.9%	1,040
PTA CFR South East Asia	880	1,125/865	1.7%	-4.9%	-11.6%	-17.4%	-19.6%	937	1,009	-7.1%	937	-228	-19.5%	1,050
PET(Fibre Grade)A/P Spot CFR NEA \$/MT	1,220	1,420/1,220	-0.4%	-3.9%	-6.2%	-12.9%	-15.6%	1,271	1,330	-4.5%	1,271	-251	-16.5%	n.a.
Related stocks					PT	TGC (Ne	utral)   I	VL (-)						
ABS Asia Pac. India Spot CFR U\$/MT	1,880	1,955/1,870	0.3%	-0.8%	-0.8%	-3.6%	-4.3%	1,887	1,904	-0.9%	1,887	-141	-7.0%	n.a.
Polystyrene-GP, Spot Hong Kong U\$/MT	1,745	1,915/1,740	0.3%	-1.4%	-3.1%	-8.6%	-3.9%	1,780	1,817	-2.0%	1,780	-88	-4.7%	n.a.
Related stocks						IR	PC (-)							
PVC, Spot South East Asia U\$/MT	1,050	1,070/950	0.0%	-1.9%	4.0%	2.9%	0.5%	1,041	1,003	3.8%	1,041	-10	-0.9%	1,030
Related stocks					V	NT (+)	TPC (Ne	utral)						
Product spread														
Ethylene - naphtha	611	626/424	0.0%	3.0%	14.3%	8.0%	10.6%	595	572	3.9%	595	76	14.5%	498
Propylene - naphtha	561	665/497	-4.7%	-9.7%	-7.6%	-8.5%	15.1%	621	617	0.6%	621	154	33.1%	548
HDPE - naphtha	703	735/615	0.3%	2.2%	9.1%	4.1%	10.4%	704	675	4.3%	704	108	18.0%	618
LDPE - naphtha	763	851/637	0.3%	-0.6%	-3.3%	-5.8%	16.2%	799	809	-1.3%	799	218	37.5%	668
LDPE - Ethylene	153	323/110	1.7%	-12.9%	-40.2%	-37.8%	45.2%	204	237	-14.0%	204	143	232.7%	170
LLDPE - naphtha	713	750/627	0.3%	3.6%	5.0%	4.0%	10.2%	718	691	3.9%	718	119	19.9%	658
PP - naphtha	713	740/657	-1.1%	-0.7%	7.3%	1.1%	5.4%	718	684	5.0%	718	60	9.1%	668
PX - naphtha	336	739/304	10.6%	-22.0%	-37.9%	-48.3%	-48.9%	445	577	-22.9%	445	-320	-41.8%	568
BZ - naphtha	398	594/381	4.5%	-13.1%	-13.8%	-18.4%	-18.2%	466	443	5.1%	466	-61	-11.7%	398
MEG - Ethylene	20	324/2	11.7%	-60.7%	-87.1%	-89.9%	-88.8%	76	158	-51.8%	76	-194	-71.9%	222
PTA - PX	118	155/65	-3.7%	20.4%	82.7%	17.8%	-11.2%	99	78	26.7%	99	3	3.4%	119
PET spread	213	253/128	-7.4%	-3.2%	31.5%	7.7%	-8.1%	201	179	12.4%	201	-14	-6.5%	n.a.
Integrated PET/PTA spread	331	362/211	-6.1%	4.1%	46.1%	11.1%	-9.2%	299	256	16.7%	299	-11	-3.5%	n.a.
ABS spread	1,100	1,272/1,040	-0.1%	1.8%	-2.1%	-9.0%	-1.2%	1,086	1,169	-7.1%	1,086	-70	-6.0%	n.a.
PS spread	350	565/303	-1.7%	7.0%	9.8%	-23.9%	-8.3%	328	378	-13.2%	328	-24	-6.8%	n.a.
PVC - ethylene	326	398/258	0.4%	-7.4%	9.7%	2.0%	-8.7%	321	289	11.1%	321	-30	-8.5%	370

Source: Datastream, SCBS Investment Research Note: Impact to related stocks is based on WoW performance

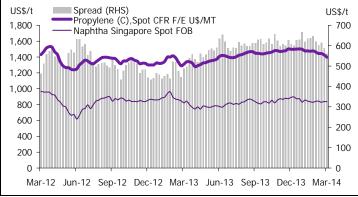
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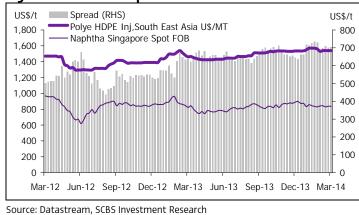
### Figure 2: Ethylene vs. Naphtha



### Figure 3: Propylene vs. Naphtha



#### Figure 4: HDPE vs. Naphtha



# Source: Datastream, SCBS Investment Research

Figure 7: PP vs. Naphtha

Spread (RHS)

PP Film, Spot South East Asia U\$/MT

FOB

Mar-12 Jun-12 Sep-12 Dec-12 Mar-13 Jun-13 Sep-13 Dec-13 Mar-14

Naphtha Singapore Spot

US\$/t

1.800

1,600

1,400

1,200

1.000

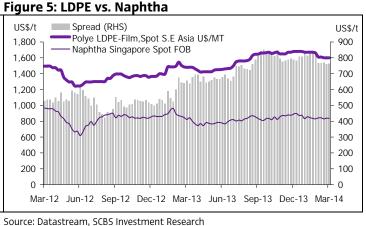
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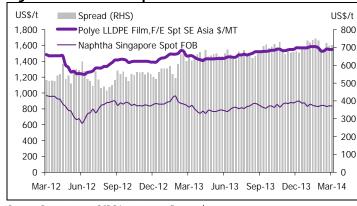
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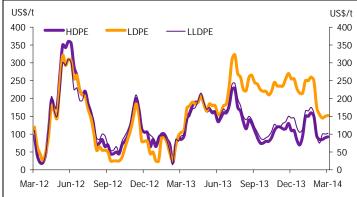


# Figure 6: LLDPE vs. Naphtha



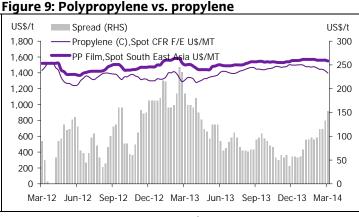
#### Source: Datastream, SCBS Investment Research

### Figure 8: Polyethylene spread over ethylene



Source: Datastream, SCBS Investment Research

# Source: Datastream, SCBS Investment Research



Source: Datastream, SCBS Investment Research



US\$/

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Source: Datastream, SCBS Investment Research

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# Tuesday, March 25, 2014

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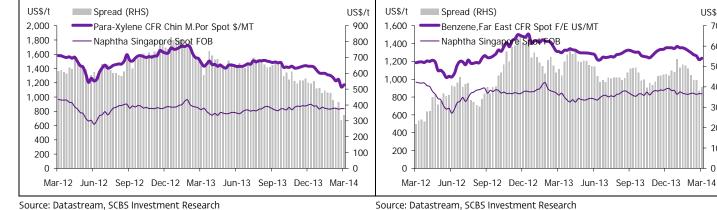
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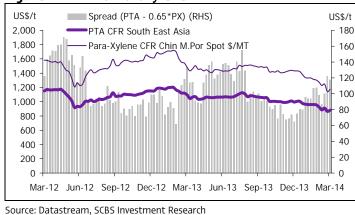
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Source: Datastream, SCBS Investment Research

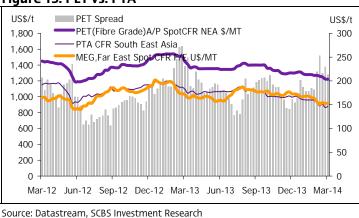
Figure 10: Paraxylene vs. Naphtha

### Figure 12: PTA vs. Paraxylene

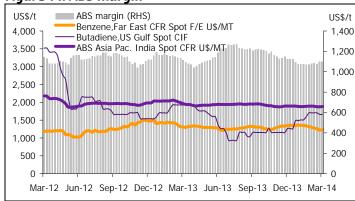


### Figure 13: PET vs. PTA

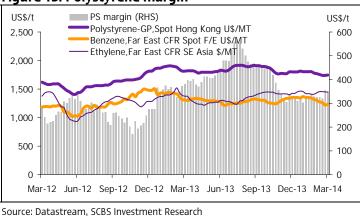
Figure 11: Benzene vs. Naphtha



# Figure 14: ABS margin



### Figure 15: Polystyrene margin



Source: Datastream, SCBS Investment Research

Source: Datastream, SCBS Investment Research

### Figure 16: PVC vs. ethylene

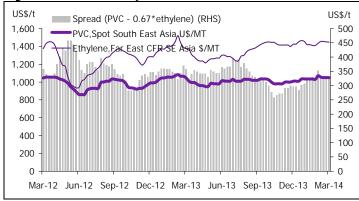
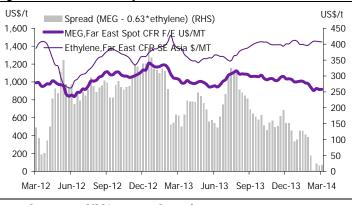


Figure 17: MEG vs. ethylene



Source: Datastream, SCBS Investment Research



# Figure 18: Selected product price/spread of listed companies

Company	Key products	% of tota	I Product price/spread	1Q14	4Q13	QoQ%	YTD	12MMA	2014F	Momentum
				QTD					projection	
PTTGC	Ethylene/Propylene	21%	Ethylene,Far East CFR SE Asia \$/MT	1,440	1,427	1%	1,440	1,361	1,320	7
			Propylene (C),Spot CFR F/E U\$/MT	1,465	1,472	0%	1,465	1,425	1,370	Ы
	HDPE	19%	Polye HDPE Inj,South East Asia U\$/MT	1,548	1,530	1%	1,548	1,495	1,440	7
	LLDPE	7%	Polye LLDPE Film, F/E Spt SE Asia \$/MT	1,563	1,546	1%	1,563	1,506	1,480	<b>→</b>
	LDPE	4%	Polye LDPE-Film, Spot S.E Asia U\$/MT	1,643	1,664	-1%	1,643	1,577	1,490	N
	MEG	6%	MEG, Far East Spot CFR F/E U\$/MT	969	1,043	-7%	969	1,015	1,040	Ы
	PX	28%	PX - naphtha	445	577	-23%	445	591	568	Ы
	BZ	15%	BZ - naphtha	466	443	5%	466	471	398	Ы
IRPC	Ethylene/Propylene	15%	Ethylene - naphtha	595	572	4%	595	537	498	Я
			Propylene - naphtha	621	617	1%	621	601	548	N
	HDPE	12%	HDPE - naphtha	704	675	4%	704	670	618	7
	PP	28%	PP - naphtha	718	684	5%	718	696	668	<b>→</b>
	ABS	7%	ABS spread	1,086	1,169	-7%	1,086	1,151	n.a.	<b>→</b>
	BTX	23%	BZ - naphtha	466	443	5%	466	471	398	N
	PS	12%	PS spread	328	378	-13%	328	406	n.a.	Я
SCC	HDPE	40%	HDPE - naphtha	704	675	4%	704	670	618	Я
	LDPE	3%	LDPE - naphtha	799	809	-1%	799	752	668	Ы
	LLDPE	3%	LLDPE - naphtha	718	691	4%	718	681	658	7
	PP	25%	PP - naphtha	718	684	5%	718	696	668	<b>→</b>
	PVC	28%	PVC - Ethylene/EDC	425	521	-18%	425	457	n.a.	N
TPIPL	LDPE	60%	LDPE - Ethylene	204	237	-14%	204	215	170	Я
TOP	РХ	60%	PX - naphtha	445	577	-23%	445	591	568	Я
	BZ	21%	BZ - naphtha	466	443	5%	466	471	398	N
IVL	PTA	25%	PTA - PX	99	78	27%	99	103	119	7
	PET/Polyester	67%	PET spread	201	179	12%	201	185	n.a.	<b>→</b>
	MEG	8%	·							
VNT	PVC	63%	PVC - ethylene	321	289	11%	321	330	370	Я
TPC	PVC	100%	PVC - Ethylene/EDC	425	521	-18%	425	457	n.a.	Я

Source: Datastream, SCBS Investment Research

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